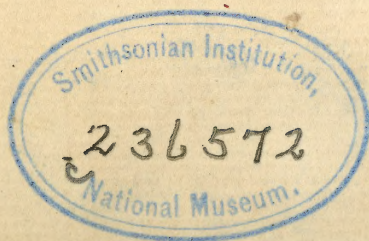


N.W.B.S.

ZOOLOGY

manuscript
case

Manuscripts, N. W. Boundary Survey
(Eight note books on nat. hist.)



George Gibbs

North Western Boundary Survey

Gilts, George -

1863

A dictionary of the Chinese
language, or the languages
of the region. Smithsonian
Bureau of Collections vol. 7,
Smithsonian ~~Press~~ ^{Publ.} no. 161, pp. xiv + 43. March.

Sibbs, George -

1863

A dictionary of the Chinook
jargon, or trade languages
of Oregon. Smithsonian
Miscell. Collections vol. 7,
Smithsonian ~~publ.~~ inst.
publ. no. 161, pp. xiv + 43. March.

Gibbs, George.

1863

Instructions for research
relative to the ethnology
and philology of America.

Smithsonian Misc. Collections,
vol. 7, Smithsonian ~~Journal~~ ^{publ.}
no. 160, ~~paper~~ 5 pp. March.

"
(Prepared for the Smithsonian Institution)"

George Gubb

PM 848

.G 5

A dictionary of the
Chinook jargon. 1863

S.I. Ser. 161

S. mis. coll. vol. 7, 1867

~~Malalhon~~

(for Euonymus scale)

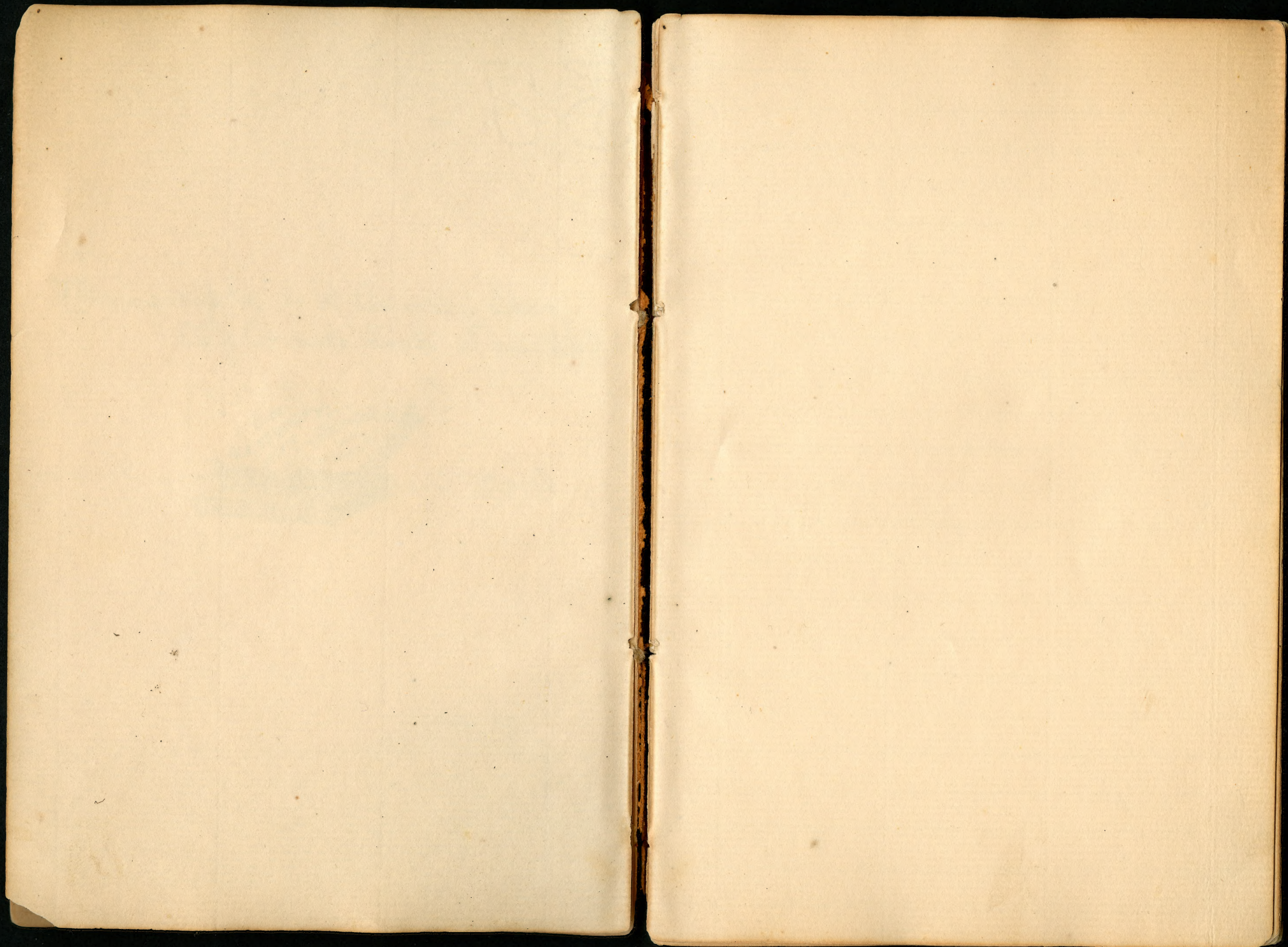
Bushnell, David J., Jr. 1938

Drawings by George
Sibbs in Far Northwest,
1849-1851. Smithsonian
Misc. Coll. 97(8): 1-28, illus.

sent for
1-4-5/4

Bushnell, David D., Jr. 1938.

Drawings by George
Gibbs in *Fauna Northwest*,
1849-1851. Smithsonian
misc. Collections 97(8):
1-28, illus.



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birds

1859.

- August Small rat, Alcohol. Chuch-
che-hum Wurdemann. Bag No. 11.
" Small (?) mole. do. Bag No. 11.
" Lizard do. Bag No. 11.
" Striped snake, Skagit crossing.
No. 2.
" Wasp. Camp Skagit.
" Ground Squirrel do Bag No. 6
" Jumping mouse " Bag No. 11
" 2 Small trout, Skagit river.
No. 4 & 5

The above all in Alcohol.

August 6th On the "Second Summit" of the
Whitcomb trail, at an elevation of
feet found the blue or pine grouse breeding.
The young were about the size of quails
but could fly very well. Among other birds

a grouse which was probably female of the spruce partridge, not identified; the Canada jay & flocks of snowbirds. also a single hawk.

The heads of the gulches running towards the Skagit were inhabited by colonies of the hoary marmot whose whistle was heard constantly among the rocks. We saw numbers of them sitting erect at the mouths of their burrows or running from one to another. Their whistle is shrill and one of the calls so nearly resembles that of a man that when I first heard it, I answered, supposing it to be the signal of one of our men who was hunting.

Notwithstanding the abundant pasturage on the prairie summits of the mountains on the Skagit, I saw no sign of deer. Beavers appear to be scarce though they exist, both black & grizzly.

The mountain goats, except in the summer season, would seem to confine them-

selves to particular localities.

✓ Aug. 8th Creeper 5. 8. $2\frac{3}{4}$ (lost)
" Mouse. Extreme length $4\frac{1}{4}$; body $3\frac{5}{8}$; tail $5\frac{1}{8}$; hair $\frac{1}{8}$; length head $1\frac{1}{2}$; to eye $\frac{3}{8}$; to ear $\frac{7}{8}$ 2^d Summit. Skin.

✓ Aug. 12th Canada grouse or spruce partridge; ♂ $16\frac{1}{4}$; $23\frac{1}{2}$; $7\frac{1}{4}$

✓ Aug. 15. Mountain goat. Brought into Camp Skagit by Mr. Custer. Skinned except the head.

Length of head on all. $13\frac{1}{2}$ in; nose to ear $10\frac{1}{2}$, height of ear $5\frac{1}{2}$ to inner canthus of eye 7 in; nostril to do. $5\frac{1}{2}$. - injured -

✓ Aug. 13. Trout, Skagit river.

Length $12\frac{3}{4}$; head $2\frac{3}{8}$; to ventral $5\frac{5}{8}$; dorsal $5\frac{3}{4}$; to anal 8.

Back and sides nearly down to medial line with small spots of irregular shape, black on the back; on the sides blue with a black edge

behind; from the anal fin to caudal also spotted below the line. Sides as far back as the anal fin with a broad streak of lake red. Dorsal & caudal fin with black spots; adipose olive with a few distinct rounded black spots, also interruptedly black on the edge; dorsal & caudal dark greyish brown. Anal without spots or very few near the belly; ventral & pectoral light reddish; back dark brown approaching to black, with blue reflections; operculum reddish, belly yellowish red; head short & blunt, heavily spotted on the top, snout & pre-operculum; tail slightly emarginate.

Another specimen of which a drawing only was sent had small specks along the belly, which was also more reddish; anal fin dull purplish; dorsal & caudal with a shade of bluish grey; back and head with olive reflections. (No. 5.)

The meat of all that I saw was white.

Much larger fish were also taken.

1059

Aug. 24. Trout. On head waters west fork of the Pasayten, a branch of the Similkameen. Apparently the same species as in the Skagit. In these the medial line was red, but there was no broad streak as in the others. The meat also was red. These differences may perhaps be owing to water & age, there being small. The roe was immature, about the size of mustard seed.

Aug. 26th Mountain Goat from Mt. Hozomeen, east of the Skagit. 2 yr. old male. Head over all 13 in; lip to eye, 6 in; nostril to do. $4\frac{1}{2}$; lip to ear $8\frac{3}{4}$; nostril to do. $7\frac{1}{2}$; height of ear 5. Skinned when brot. in.

With the exception of the above mountain the goat is not found east of the Skagit in this district. It however occurs again in the Methow mountains.

1859

Aug. 27 Squirrel; Mts east of Skagit R.
Length $12\frac{1}{8}$; nutcrack of tail $4\frac{3}{4}$; hairs 1.
head to occiput $2\frac{1}{4}$; nose to eye $\frac{3}{4}$; to ear
 $1\frac{5}{8}$; height ear $\frac{5}{8}$ forefoot $1\frac{1}{8}$; hind, $1\frac{3}{4}$.

Aug. 27th Canada Goose ♂. $16\frac{5}{8}$. $23\frac{7}{12}$
specimen.

" do. do. 17 . $23\frac{7}{12}$ - head only.
Also head of female.

The young are now about half grown.
It is here the common species. The young
males nearly resemble the female in plu-
mage, but I think assume their proper
color in the fall. They frequent low
bottoms & the wooded banks of streams,
are excessively tame or stupid, so much
so that the men killed great numbers with
sticks & the Indians caught them with
a noose fastened to the end of a pole.
I have seen the hen with a brood of nearly
full grown chickens huddled in the tail.

Aug. 28th White bellied Squirrel, female
Length, total, $15\frac{1}{2}$; body $8\frac{1}{2}$; nutcrack of
tail $4\frac{3}{4}$. Head $2\frac{1}{4}$; to eye $\frac{3}{4}$; to ear $1\frac{3}{4}$
height ear $\frac{5}{8}$. forefoot $1\frac{1}{4}$; hind, 2.

" " do male
Length same, head $2\frac{3}{8}$; to eye $\frac{7}{8}$;
to ear $1\frac{1}{2}$; height ear, $\frac{3}{4}$; feet, $1\frac{3}{8}$. 2.

This species from here on to the hills.
Kamien river is the common species. It
is a very lively, noisy animal, its habits
like those of the common pine squirrel
of the Sound, from which it differs only
in color. Its food is chiefly the buds of
the albir Douglassi.

Aug. 31. Mouse. $9\frac{1}{2}$; $3\frac{3}{4}$. head $1\frac{1}{8}$; to eye
 $\frac{1}{2}$; to ear $\frac{3}{4}$; height ear $\frac{5}{8}$; feet $\frac{3}{8}$, $1\frac{1}{4}$.
skull lost.

1859

Sept. 2^d Canada Grouse, female.

14 $\frac{1}{4}$. 22. 7. The claw in one individual was filled with fir leaves. specimen

4th Jackass rabbit. One was seen to day but not shot.

" " Neotoma. total length 14 $\frac{1}{2}$; body 8 in. head 2 $\frac{1}{4}$; to eye 1; to ear 2; height of ear 1. feet 7 $\frac{1}{2}$. 1 $\frac{3}{4}$

" 5th Pine Marten. Rehp-hus (small.) Total length 28. body 17 $\frac{1}{4}$; tail 8 $\frac{3}{8}$; hairs 2 $\frac{3}{8}$ head 4. to ear 3. to eye 1 $\frac{1}{4}$. height ear 1 $\frac{1}{2}$ feet 2 $\frac{5}{8}$ - 4.

" 8th Small owl. } S. 17. 5 $\frac{7}{8}$. male

Sept. 9. Ptarmigan, No. 1. male

12 $\frac{3}{4}$ - 22 - 6 $\frac{3}{4}$.

" " do. No. 2 male

13 $\frac{1}{2}$ - 23 - 7 $\frac{1}{2}$.

These two differ considerably in plumage. The claw was filled with willow leaves. They seem to be pretty abundant in the mountains - winter plumage white. The flesh is dark & not very good. They are exclusively a mountain bird, the willow growing there as well as in the valleys.

" 11th Canada grouse, male.

15 $\frac{1}{2}$. 23 $\frac{1}{2}$. 7 $\frac{1}{2}$

Claw filled with buckskin fur.

" Ptarmigan No. 3. 14 $\frac{1}{2}$. 23 $\frac{1}{2}$. 7 $\frac{1}{2}$

" No 4. 14 $\frac{1}{2}$ 23 $\frac{1}{2}$ 7 $\frac{5}{8}$

" No. 5. 14 $\frac{1}{4}$. 23 $\frac{1}{2}$. 7 $\frac{1}{2}$

I believe both sexes are alike in plumage. I am not sure that I can distinguish

1859

them at all at this season of the year.
One specimen had the claws filled with
seeds of the Spiraea.

Sept. 11th Ruffed Grouse. (not preserved)
17 $\frac{3}{4}$. 23. 7 $\frac{1}{2}$. back & tail grey.

" 14th Pine Marten, Young male.
Length 24 in; body 15 $\frac{1}{4}$ - vertebrae of
tail 6 $\frac{3}{4}$; head 3 $\frac{3}{8}$; to eye 1 $\frac{1}{8}$; to
ear 2 $\frac{1}{2}$; height of ear 1 $\frac{1}{4}$; feet, 2 $\frac{1}{4}$. 3.

" 16th Gopher. Length 7 $\frac{7}{8}$ tail 2.
head 1 $\frac{7}{8}$; to eye $\frac{3}{4}$ to ear 1 $\frac{3}{8}$;
height of ear $\frac{1}{4}$ feet $\frac{7}{8}$. 1. male

The small ground squirrel (Chipmunk)
and the white bellied Pine squirrel
both excessively abundant in the valley
of the Naismuloh. The latter are baw-
ling and squealing round the camp

continually.

Sept. Little Chief Hare. This animal
is very abundant on the Naismuloh,
inhabiting the talus of rocks which slide
down from the mountains. The Saanena
Indians call them "Skill" from a fancied
resemblance to their cry, Kill, Kill.

Sept. 21st Flying Squirrel, female.

Total length 13 $\frac{5}{8}$, body 7. hairs of tail
1. to eye $\frac{3}{4}$; ear 1 $\frac{5}{8}$; height ear $\frac{3}{4}$;
feet, $\frac{3}{4}$ - 1 $\frac{5}{8}$. Vertebrae of tail, skinned 5 $\frac{3}{8}$

" " Gopher Squirrel. male
Measurements not taken.

~~The above are sent back to the depot.~~

" 22^d Chukar Crow, ♂ 12 $\frac{1}{4}$ - 22 - 8.

~~Measurements not taken. Specimen No. 23.~~

1859
Sept 25th Little Chief Horse, female.

Length 7 in. head 2. to eye $\frac{3}{4}$.
to ear $1\frac{3}{4}$, height ear $\frac{7}{8}$, feet $\frac{7}{8}$ - $1\frac{1}{4}$.

Specimen No. 19.

" " Rusty Squirrel, male.

Length total 15. body 8. hairs of tail $1\frac{1}{2}$
head $2\frac{1}{8}$, to eye $\frac{7}{8}$, to ear $1\frac{3}{8}$, height
of ear $\frac{3}{4}$, feet $1\frac{1}{4}$ - $1\frac{7}{8}$.

Specimen No. 20.

Another of the same color was observed
but not shot. I am uncertain whether
it can be considered a different species.
Obtained near mouth of Naisanuloh.

" ~~White breasted Squirrel.~~

~~Paraytin River, Wardenman
Alcohol. Specimen Nos. 8 & 17.~~

" 26th ~~Small Hawk~~ ♂ 11. $22\frac{1}{2}$. $7\frac{1}{2}$

~~Water ouzel & chickadee at Cp. Naisanuloh.~~

Sept. Ptarmigan, Mouth of Simil
Kameen, not measured.
Specimen No. 23

" 29 Sharp tailed grouse. Same
locality, but on the prairie - not
measured. Sex not distinguished.

Specimen No. 25.

This grouse now first begins to appear on
the open country, both hills & low lands.
It is here called the prairie chicken.

Sage Owl. } This bird the Indians
tell me, is not found so far north,
although the Antennaria is common in
the valley of the Similkameen and
Okinakane, & on the neighboring hills.

Sept. 30th Two specimens Ta-ah-nia
Salmon, male & female. Okinakane

1859

River. This fish is now drawing to the close of its spawning season. It frequents this river & the lakes in immense numbers, its color actually reddening the bed. Measurements.

Male. Length $21\frac{1}{2}$ in. head $5\frac{1}{2}$ - to dorsal fin 10 - ventral $10\frac{1}{2}$ Anal 14 - Adipose 16 - Upper line of head very concave, iris yellow. Operculum & pre-operc. dirty greenish; body brick red tail end scarlet - Caudal fin brown, speckled with black.

Female - Length 22 in head $4\frac{1}{2}$, to dorsal 10 in, ventral 11, Anal $14\frac{3}{4}$, Adipose $16\frac{3}{4}$ - Color of head light greenish back brick red inclining to purple, belly dirty yellowish grey. Caudal fin speckled; but slightly lined. Upper line of head convex whereas that of the male is the reverse. Eggs red and of the size of swan shot.

This appears to be the average size of the fish. The meat is red. Outlines

& a specimen of the roe accompanying the skins. Specimen nos 22 & 21.

Oct. 1. Lakehead Snake - Alcohol
Cp. Similkameen. No 10

" " Bat - Alcohol
Cp. Similkameen. Bag No. 11.

Rattlesnakes first appear on the Similkameen - As the weather is now cold they have mostly gone into their holes.

Oct. 3d. Woodpecker, $10.15\frac{3}{4}.5\frac{1}{4}$ ♂
Specimen No 20

Oct. 4th Muskrat, ♂ Length 24 in.
body 13; head $3\frac{1}{4}$; to eye $1\frac{3}{8}$; to ear 3.
feet $1\frac{3}{8} - 3\frac{1}{8}$. Specimen in Alcohol.
Specimen No 14.

1859

Oct. 4th Salmon, Kashov, female

Length 27 in head $5\frac{3}{4}$ medial line
18. To ventral $13\frac{1}{2}$ dorsal $10\frac{5}{8}$ adipose
 $18\frac{3}{4}$ Anal $17\frac{1}{4}$. dry skin

Meat red - eggs orange. size of brave
shot.

Except in color of the meat this fish
seems to resemble the met-hlehts of the
Lomud - It has just arrived in the Okin
ahane and would not spawn until
after the Ta-ah-mia.

Eggs & outline - Specimen No. 7.

" " River ♂ $25\frac{1}{2}$ 37.9 . The
oil glands $1\frac{1}{4}$ inch long.

" 6th / Coot. $16\frac{3}{4}$ $28\frac{1}{4}$ ♂

Specimen No. 8.

Copy 3

Oct. 6th Bighorn Sheep, female

3 yrs old - skinned except the head,
when brought in.

Lip to back of head 16 in. To base
of horn $10\frac{1}{2}$; to eye $7\frac{1}{2}$; height ear $5\frac{1}{2}$;
Curve of horn $9\frac{1}{2}$.

" do. Male - brought in after
I left & not measured.

Copy this 3

The Indians say that the deer on the
Siimilkameen commence running after
the middle of October. A month later the
bighorn commences. The ewes of the latter
drop their young high in the rocks and
conceal them until they are strong enough
to climb, so that they are seldom caught.
They are very wild and unlike the moun-
tain goat which is "lazy". The bighorn is
found in the mountains ^{count} of the forks of
the Siimilkameen & Kaimuloh. The goats
in the Methow Mts, which are very high,
but more north of them & east of the

Skagit except on Koyumie. The goats have no summer season. They remain in one spot, & cohabit mostly in the fall. All drop their young in the spring, the goats among the rocky peaks, like the bighorn. The deer was more than the sheep.

The Indians call the does to them, kill them & then hunt for the fawns which they take home to be killed when wanted. They use dogs, which put on the track of deer, follow them up & drive them into the valleys, where they are killed. When the snow falls deep, deer and sheep both descend to the valleys, where numbers are killed. Both paw the snow up in seeking food. The track of goats & sheep is easily distinguishable from that of deer by being wide, & more blunt & open.

Oct. 6th white fish. alcohol

The Indians buy in large quantities of them which seem to be the same as the Be-dohol. Specimen No. 13

" " Small Snake, alcohol. From Dr Berriew. Bag No. 6.

~~Oct. Squirrel - Albino - alcohol
From Smit Harker. The eyes were pink and it is I suppose an albino of the white bellied squirrel.~~

" Shells of fresh water mussel, also several species small shells from the lake, obtained by Dr Berriew.

1059

Oct. 14. Obtained near mouth of the
Ne-hoi-al-pitkwa, shells of a fresh
water mussel, different from those at
the Oroyos Lake. Piles of the shells lie
here where the Indians have feasted
on their contents.

" 15th Arriving at the crossing of the
Columbia found the Indians taking
very large Salmon "Skul-to-wees" by
which I understood they intend all
Salmon that have been long in fresh
water. Could not procure a specimen
Found the same fish a little later
at the mouth of Clarke's fork almost
entirely exhausted. They had ceased
running in the Okinahanah when I
arrived at Cp. Similkameen.

Nov. 2^d. Canada Grouse. female.
15 1/4 - 23. 7 5/8 } (not preserved)

" " Canada Grouse female
15 1/4 - 22 1/2 - 7 5/8 } specimen. No 24

" " Ruffed Grouse, male.
17. 22. 7 3/8. } (not preserved)

" 4 Salmon - A small species with
a sharp beak. In Alcohol.

Specimen No. 3 -

The above on the Ne-hoi-al-pitkwa R.
? if the same as that at Chilow Lake.

Nov 11 } Two species of trout taken in the Slawen
-teh-us or Mill Creek, east of the Columbia
in winter, through the ice. Humichna
or Salmon trout with red meat & spots
& Peestl with black specks and white
meat.

Nov 20. Peestl. 2 small specimens in
Alcohol - fr Colville Depot. Nos. 4 & 5

1859

Dec. 7. Colville Depot.

Ermine in Alcohol. Total length
13 in. Body $8\frac{1}{4}$ - Length head 2; to
eye $\frac{1}{2}$ - to ear $1\frac{3}{8}$; height ear $\frac{1}{4}$
length of feet $1\frac{1}{4}$ $1\frac{3}{4}$ bag No. 6.

" Hunter's Skin of 2 Lynx. I should
think it a young cougar except that
it has a short tail. Colville Depot

✓ " 23^d Mealy Red Poll Finch ♂
5-8-25⁰ No. 31

" 24th "Mutton" } not measured
as he had been sick.

" 26th Hare - Hunter's Skin -
No. 10.

" 30th Sucker female - Mill Creek
in Alcohol. (No. 32)

Very few birds around Colville Depot
this month except Ravens, Magpies

2 Chickadees. A few ruffed and Canada
grouse.

The Indians state that the Cariboo
sheds its horns some six weeks before
the deer, & that none can be obtained
at this time with them.

1860

Jan. 6th Coyote. Pack's Camp, Colville
valley.

" 7th Field mice (2) Colville Depot
bag No. 33.

" 8th White hare.

head $3\frac{3}{4}$ ears 3. to eye $1\frac{1}{2}$ to ear $3\frac{1}{4}$
feet $2\frac{3}{4}$. b. Skull in alcohol
Skull in bag 33. Specimen No. 34

1867
Jan. 15th Chikadee ♂ 5.8¹/₄.2³/₄
Colville Depot. Specimen no. 35

" 19th White Hare ♂
Length 15¹/₄ tail 1 in hairs 1¹/₂ length head
4 in. to ear 3³/₅ height ear 3¹/₂ to eye 1³/₄
feet. 3. 5³/₄ Vertebrae of tail skinned 2 in.
Specimen no. 36

" " do. ♂ Length 15³/₄
Tail 1¹/₄ 3. Head 2. to ear 3⁵/₁₀ height
ear 3⁵/₁₀ to eye 1⁵/₁₀ feet 3. 5¹/₂
Vertebrae of tail skinned, 2 in.
Specimen no. 37

~~Specimen no. 38~~

Feb. 9th Hare. Length 15¹/₂ Vertebrae of
tail 2. Head 3³/₄ nose to eye 1³/₄ to ear 3
height ears 3¹/₂ feet 2¹/₂ 5³/₄
Specimen no. 38

~~Specimen no. 39~~

Feb. 20th Finch ♂ 5¹/₂. 8³/₄. 3¹/₀
Specimen no. 39

" " do ♀ 5¹/₂ 8¹/₂. 3
Specimen no. 40

" 21 White Hare. Length 16¹/₂ head 4
nose to eye 1³/₄; do. to ear 3³/₄. Ear 3⁵/₁₀
feet 2³/₄ 5³/₄
Specimen no. 41

March 3^d Harris' Woodpecker 9⁵/₁₀ (c. 17) 5¹/₄
♂.
Specimen no. 42

✓ " " Red Pole ♀ 5³/₁₀ 8³/₁₀ 3
Specimen no. 43

~~This bird seems to winter here and to be
very abundant. They are extremely fat
notwithstanding the snow. The crop filled
with small seeds.~~

March 3^d Horned owl 24¹/₄ 54. 16 ♂
Specimen no. 44

1060

March 4th Titmouse 5. $7\frac{3}{4}$ (?) $2\frac{3}{4}$.

? 2 sp.

Specimen No 45.

✓

" " Redpoll ♂ $5\frac{1}{2}$ $8\frac{3}{4}$ 3.

Specimen No 46.

About March 1st Salmon were reported to be running in the Spokane River. Evan.

The only birds yet seen are those that remain all winter. In this immediate neighborhood they are not very numerous, though I believe there are more in the valley. I have seen chiefly ravens, magpies, some woodpeckers, Steller's Jay, Red-winged blackbird, Snow bunting, Redpoll finch, Chickadees. Water ouzels &c

March 4. Saw a pine squirrel, apparently same species as on the Sound. Color red,

The Cariboo is first found, travelling east, on the Columbia River about the lakes. It does some south of 49° in that neigh.

hood. The wolverine is found I believe there also. At least I saw a hunter's skin at Fort Colville, which I was told came from there.

✓ March 6th Logcock $18\frac{1}{2}$. $28\frac{1}{2}$ $9\frac{5}{8}$ ♂
Specimen No 47

✓ " " Crow filled with ants.

" " Snow Lark Bunting. $7\frac{1}{4}$. 13. $4\frac{3}{8}$
(2) ♂ Specimen No 48

Muttall speaks of the hind nail as "rather short"; while the specimens I have seen it is the longest.

March 9th Pine Squirrel, Length $12\frac{3}{4}$. +
hairs 2; body 8; head $2\frac{1}{2}$; eye $\frac{3}{4}$; ear $1\frac{3}{4}$
height ear $\frac{7}{8}$; feet $1\frac{1}{4}$. 2. ♂

Specimen No 49

This squirrel appears to me to differ from the pine squirrel of the Sound. The belly is white with the under fur bluish or rather plumbeous; the hairs of the tail becoming black at the ends. Can it be the white bellied squirrel above mentioned in winter dress.

March 9.th 1860 Lark hunting 7 $\frac{1}{4}$, 13, 4 $\frac{1}{2}$ p
? sup. Specimen No 50

" " " do. do. 7 $\frac{1}{2}$, 13, 4 $\frac{5}{8}$
Specimen No. 51.

" 11th " Crossbill ♂ 6 $\frac{1}{2}$, 10 $\frac{1}{2}$, 3 $\frac{1}{2}$.
Tail unequal. Specimen No 52.

I supposed the above to be a male, until on opening the body, I found two well developed eggs.

~~Crossbill, ♀ not measured
Shorter than the last. Seen to be abundant
now & feeding on the Columbia pine. No. 53
Mithatch 4 $\frac{1}{2}$, 7 $\frac{3}{4}$, 2 $\frac{5}{8}$
are not distinguishable. Specimen No 54~~

" 12th " Woodpecker 6, 12 $\frac{1}{2}$, 3 $\frac{1}{2}$ p

" " " Chickadee 4 $\frac{3}{4}$, 7 $\frac{5}{8}$, 2 $\frac{1}{2}$
(not skinned)

(Same species as those above)

March. 12. 1860 Flying Squirrel ♀
Total length 12 $\frac{1}{2}$. - hairs 1 in. body 7 $\frac{1}{4}$ head 2,
to eye $\frac{3}{4}$ & ear 1 $\frac{1}{2}$ p. height ear $\frac{7}{8}$ feet $\frac{7}{8}$, 1 $\frac{1}{2}$ p.
~~Vertical of tail, skinned 5 in. in alcohol 56~~

" " " do. do. ♂
Length body 7 $\frac{5}{8}$. (tail broken.) head 2, & eye $\frac{5}{8}$
to ear 1 $\frac{3}{8}$ p; height ear $\frac{3}{4}$; feet $\frac{7}{8}$, 1 $\frac{5}{8}$ p. No. 57
~~Specimen No 57~~

~~The name is Shogelpi, S'hoop-hoop.~~

~~" 13th In the valley. Red winged blackbirds,
Robins, snow birds, 1 $\frac{1}{2}$ Kilduck plum, Mallards.
The Oregon snow bird is not very correctly described
by Nuttall - One shot to day has a long dark
space on the under web of the outer tail feather,
on the 2^d feather one half as long as the
feather itself, while on the third feather is a
white mark one third its length, on the same
same. The outer edge of the 2^d feather was also
slightly margined with dusky. Head not black
but rusty on the crown.~~

" 14 Kilduck plum 10. 20. 6 $\frac{1}{2}$ p. ? male
(not measured.)

" March 15th 1860 } Peptachin Creek
Two small birds.

The spots on their differently distributed.
In one case not extending behind
the dorsal fin.

Nov. 5th 57

✓ " 20th " Chickadee ♂ 5⁷/₈ p. p. 2³/₄
Spec. No. 60

" 20th " Titmouse 4³/₈ p. p. 2³/₄
Spec. No. 61

22 Chipmunk
Spec. No. 62

23 Field Mouse
Spec. No. 63

23 Flying Squirrel ♂

Total length 12³/₄; head 2¹/₈ to eye 7¹/₈ ear 1¹/₂
height ear 3¹/₄; body 8 in. feet 3¹/₄ 1¹/₂

Note the peculiar glands of the Flying
Squirrel.

White bellied Nuthatch ♂ 5⁷/₈. 10¹/₄. 3³/₈

March 25th

Specimen No. 65

Saw quite a number yesterday on the
hill side. Also a blue bird.

~~On Route.~~

~~March 30 Blue jay ♂ 10¹/₂ 26. 9~~

~~April 1. " ♂ 21. 30. 7 19. 20. 9~~

~~(not measured)~~

~~April 6th Singakwateren Dept.~~

~~Black Tent, "Peeble" and 2 others. The Indians
distinguish this from the hupatana by its having
the back of carmine on each side under the chin.
They say it is the male which has a reddish tinge
on the belly. Skin in alcohol & drawing. No. 66.~~

~~There are few species on the lower part of the
body of all these birds here than I believe is com-
mon elsewhere. For example they nearly all have~~

~~April 6th Trout, "di'cho." Specimen No. 67
the same. Back lighter than above green. with silver
reflections; beneath white. Sides with light pinkish~~

small spots, usually round, which on the back are
mainly of very pale green. Mottled fish are still
spotted. Length 21 in.; head 5; to end snout
line $12\frac{1}{2}$; to dorsal $9\frac{1}{2}$; to ventral $10\frac{1}{2}$; to anal $14\frac{1}{2}$
to adipose 15. Tail substantially emarginate. Depth
6 inches. The body elongated & slender head very
long, snout large with thick lips. All the fins
dark colored. Young small. This fish is said to
be found in the upper Columbia lakes, the head-
waters of the Snake River. In the Kootenay it grows
as large as a salmon. Spec. No 67.

Mouth buff colored.

The Indians say that the Salmon people do not
ascend the Kootenay, but ascend the Columbia to
the head of the branch which has its source with
it. They say that the Sturgeon is found in the
Kootenay as far up as the Prairie Lake. I
was carried around Lake Umbagog in a canoe of
a full grown man, who said "as high as a tree",
but they go up one of its lower tributaries, the
"Salmon R." Note. There are falls above Chelan-
to depot which probably stop the salmon, and
higher ones above Prince Rupert.

April 7th Fine squirrel ♂ same as 49
Length $15\frac{3}{4}$ & hairs of tail $1\frac{1}{2}$; body $8\frac{1}{2}$; head $2\frac{3}{8}$;
- to eye $\frac{1}{2}$; to ear $1\frac{1}{2}$; height ear & crown of head
 $7\frac{1}{2}$; feet $1\frac{1}{2}$. 2. Spec. No. 68.

(in line bag)

April 8. Huffed. Same ♂ as 49. Not a squirrel.

The Golden Eagle appears to be not uncommon
throughout this whole portion of British Columbia. I heard
of one appearing killed on Vancouver I. & there was
one seen at the Blue Lake. Its feathers, especially those
of the young or this tail, are much prized
among the Indians both of the interior and the
coast. I saw some things of them above this year
1871. The images of the Sturgeon will also be
be wanted after the 15th. I saw one on the
last summer on the Kootenay R. where
it is called Thalassomys. A skin in the house
of a full grown man (about 3 ft. high) at the
old camp from the Coast of British Columbia to
this place, one given to him and got from
him a blue pencil. The eagle sat on a short
distance off on a low branch of a tree, and ap-

proved to be black. The quantities as a rule
be as well as the difficulty of finding them
from the few specimens of his which with the
specimens.

Merula migratoria. On April 10th the birds were
about 2 found the first of which was found
in a small number of specimens of the
one which was found.

Palmer's Woodpecker. In the 1st of April
there is a species of which I find some.

March 30th Mill Creek. En route. Noticed Ground
Robin and meadow lark. The latter probably with
the one.

April 10th The season greatly behind that of Mill
Creek valley at the spring of the blackish Fork. A
few ducks, geese & cranes, robins, chickadees, jays
red winged and other woodpeckers. The ruffed grouse
was drumming. Kingfisher.

April 11. Long tail'd wren. A small flock
seen by the 68. In the forest.

April 12. White bell'd Swallow 5/10 13.5 ♂
Not skinned. These birds first appeared today
they were fairly numerous, but very scarce the
afternoon & occasionally lighting. The back of tail
one was a slender steel blue, without any greenish
tinge. Notice about the blackish black space
between the eye and bill.

April 13th White bell'd Swallow 5 1/2 12 1/2 4 1/2 ♂
5 1/2 11 3/4 4 1/2 ♀

Specimen number 69 & 70.

(The 2nd of the above contained a few specimens of the same.)

April 14. Hairy Woodpecker ♂ not measured
There are the commonest kind seen here. Their
habits do not seem to differ from those of other forest
species. They seem to be pairing about this time
& I found the first of this specimen yesterday.

No 71.

April 15th White bell'd Swallow. One specimen measured and
seen by the 68. In the forest.

April 16th Hairy Woodpecker. April 16th first seen.

April 17 - Small fish.

Black head with blue reflections. Sides blue grey with golden light. An irregular dark streak extending from the snout down to the base of gills. Belly silver white. Light carmine as also on sides when fish is turned up. Head & the posterior part of swimming into the water in above mentioned.

In alcohol No 78

April 18. Meadow Creek 10/2 - 16/2. 5/10.

Not skinned.

" 19. Tetraodon lineatus 13/2 - 25/2. 2.

(23/2 - 24/2 - 27/2)

Not skinned.

" 21. Sitta carolinensis 4/2 - 7/2. 2/2. 2.

No 73

" 21. " 23/2 - 27/2. 2/2. 2.

No 74

25. Sceloporus undulatus 11/2. 27/2. 15/2. 5/2.

Not skinned.

" Merganser 10/2. 24/2. 7/2.

(egg preserved)

No 75

April 20. Seen 8. 30.50.14

Specimen No 76

" Small Chipmunk

Seen by 60. (In alcohol)

" 29. Gopher snake

No 70. (In alcohol)

" Sucker

No 79. (In alcohol)

" 30. Tringoides (P) Pinnis 5.8/2. 23/2. 2.

Specimen No 80

" 5.8.25/2. 3

~~Some of the specimens of the tail specimens which were shot together. The female has the largest color & is a little larger.~~

Specimen No 81.

May 8. Canada Goose 15/2 - 24/2. 7/2. 2.

14 - 23. 4. 7/2. 2.

Not skinned as being damaged. The white line at base of the tail very conspicuous in the female.

in the male described in 1874 & the two middle
 feathers - It is necessary that Hutton does not see
 the same male again on the eye, common &
 both sexes, but most abundant in the male. He also
 speaks of the female but does not suppose it there
 as at least in these two it is white.

Trapped Gulls. During the latter half of
 the month of April the gulls drummed all
 night at the Livingston depot, continuing
 to be heard in the morning & then drumming
 on during the day.

May 2 *Tringa borealis* 5 1/2 1 1/2 5 1/2
 1100

May 5 *Tringa borealis* 8 1/2 1 1/2 5 1/2
 1100

7th *Tringa borealis*

Drumming No. 27

Birds singing - 1000 feet high sound.

April & May

Set of male birds

No. 25 - Line bag in Alaska

On Clarke's Pt up to Alaska

May 9th *Tringa borealis* (Hutton)
 7 1/2 - 10 1/2 1/2 5 1/2 No. 26

" *Tringa borealis* 8 1/2 1 1/2 5 1/2
 (not present)

One of a single flock observed.

" *Tringa borealis* (Hutton) 5 1/2 1 1/2 5 1/2
 No. 27 of this was on night as in No. 26.
 May one very common on Clarke's Pt.

" *Tringa borealis* 10 1/2 1 1/2 5 1/2
 (not present)

Spaced around the eye yellow, & not greenish
 as described by Hutton - In another specimen
 also with the eye orange, eyelids greenish.

The *P. borealis* was noticed on the ground
 in a small flock of eight - biggest of the flock with a
 greenish yellow - apparently by commencing birds.
 It came in its habit as far as observed is com-
 monly observed by Hutton. I have never seen them
 always in pairs, & when one was shot the other

was immediately A. fly off.

May 13th Swamp Sparrow 5/4 8 3/4 3 ♂
no ♂.

✓ " 14th Canada Jay ♂ 11. 16 3/4 5 3/4
(Dr Hammond) No ♂

" 14 Pileated Woodpecker ♂ 15. 5 1/4 1 ♂
No ♂.

(Dr Hammond)

" 14 Canada Jay 11. 16 3/4 5 3/4
no. Not skinned.

El. bird for 15th (Dr Hammond)

May 15th Saw first humming bird.

" Sylvia aestiva, male - not skinned
4 3/4 - 7 3/4 2 1/2

✓ " Tyrannus verticalis. 9/4. 16. 5 1/4
Dr Hammond
No. 90.

May 15. Nucifraga americana.

Tail lost. Not skinned — 20. 7 3/4
approaches the Canada Jay but is larger.
Wings black, sometimes tipped with white.
The Indians say it inhabits the mountains.
That the bird is black, the throat rather spotted
white. They call it Inok. laka. My guide
expressed great surprise at their being seen
in the valley. He did not know what he was
doing here. I think that I got a specimen
last year on the first summer.

May 16. Pigeon 5/4 8 1/4 2 3/4 I
Specimen No 91

May 17th Saw two Harequin ducks, male and
female in the air. The Indians say there are
not many.

May 19. Titmouse (Marmoset) 7/4 - 12 3/4. 4
(not skinned)

Saw a pair of Blue Plectrochloa flying over
the shore near camp.

May 20, 1950

Sanderion 229/260. 19 1/2
 not preserved 2 (stomach contents)

21 Marble (?) 570-770 2 3/4
Specimen No 72

Scilla frutescens 5. 9. 23
Specimen No 99

- *Strophopoda* Specimen 5 1/2 2 1/2 2 1/2 2
 Specimen No 94.

23^d Plains / Virginia 8 1/2 15.5 1/2 (St. Louis - 1848)
(1848 - 1849)

Powder S.P. 7.3.
(Spent at the same time)

23th White-bellied Swallow - 1000 ft. in
in holes in the Balsam poplar - very
the river

✓ May 25th Western 3 to 4 West peak
Pine Section - 16% 16% 53% / ♂

Spizella 12092

29th ~~Immature Forage~~
See on a tree -

20th Feb 1950 time 6.10.39
not skinned

Chrysomitris / *Chrysomitris* -
Chrysomitris / *Chrysomitris*

Prop. 1.2 ~~King Bird~~ *Apr 25/92* ♂
nest in blue oak

Purpurella 9. 16/4 5

~~6' 11 3/4 5.4 2~~
heat in alcohol

~~Water 3 months 5 1/2 1 1/2 2 1/2~~
~~1 1/2 1 1/2 1 1/2~~

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Katzebehn Lake

Nov 5 8 1/8 2 1/8

Feb 3 1892 = Small House 5 1/2 x 2 1/2
(2 1/2 x 1 1/2) Specimen No. 98
2nd Lutescent Tanager 7 1/2 x 11 3/4 x 3 3/4
Specimen No. 99 ♂

2nd do. ♀ 7 1/2 x 10 3/4 x 3 1/4
Specimen No. 100

4th Blue Jay 11 1/2 x 5 1/2 x 3 1/2
Specimen No. 101

do. do 11 1/2 x 5 1/2 x 3 1/2
Specimen No. 101

✓ 5th House 5 1/2 x 10 3/4 x 3 1/2
11 2 1/2 x 11 2 1/2 Specimen No. 112

5th House 5 1/2 x 10 3/4 x 3 1/2
Specimen No. 113

✓ 6th House 5 1/2 x 10 3/4 x 3 1/2
3 1/2 x 10 3/4 x 3 1/2 Specimen No. 103

Note. This species is Picus Araticus. Specimen No. 94/1 is very nearly adult. But all description of the markings on the throat of the latter is incorrect. The same description applies equally to both.

5th Chipping Sparrow 2 1/2 x 1 1/2 x 1 1/2

✓ 6th Wood 3 1/2 x 5 1/2 x 3 1/2
Specimen No. 107

do. do 3 1/2 x 5 1/2 x 3 1/2
Specimen No. 108

✓ 7th House 5 1/2 x 10 3/4 x 3 1/2
Specimen No. 109

✓ 8th House 5 1/2 x 10 3/4 x 3 1/2
Specimen No. 110

9th House 5 1/2 x 10 3/4 x 3 1/2
Specimen No. 111

June 6th Male from 5/10 8 1/4 2 1/2
 (4) Dec. Specimen No. 100

" " Female from 7/10 11 1/4 3 3/4
 head in alcohol

There is considerable discrepancy among the smaller species of *Tyrannus*, and Nuttall's descriptions are somewhat vague as it would appear at least they are not accurately defining the present specimens.

6th Male from 6/10 9 1/4 3 1/2

" " " " 2 6 1/2 8 1/2 3

" " " " 2 6 1/2 8 1/4 3

Nuttall's description is not perfectly accurate. In many cases the color pattern very much what he says. The specimens are from the same place and are very much alike. The only one that is different is the one from the 6/10. The head is more rounded and the bill is more robust. The tail is more deeply forked. The wings are more rounded. The feet are more robust. The head is more rounded and the bill is more robust. The tail is more deeply forked. The wings are more rounded. The feet are more robust.

or is dusky, and the head is more rounded. The bill is more robust. The tail is more deeply forked. The wings are more rounded. The feet are more robust. The head is more rounded and the bill is more robust. The tail is more deeply forked. The wings are more rounded. The feet are more robust.

6th Female from 6/10 9 1/4 3 1/2
 Specimen No. 101

" " " " 2 6 1/2 8 1/2 3
 Specimen No. 102

7th do. do. 2 8 1/2 16 5 1/4
 head in alcohol.

✓ " " " 2 8 1/2 16 5 1/4
 Specimen No. 103

✓ " " " 2 8 1/2 16 5 1/4
 Specimen No. 104

✓ June 7th Bonham } Wren 5 1/2. 8 1/2. 2 1/4 ♂
 Snow bunting }
 Specimen No. 110

✓ " " } Audubon's Warbler 5 1/2. 8 1/2. 2 1/4
 Specimen No. 111

Pine Mountain female -
 Length body 14 1/2 do to end tail feathers 21
 wing 3 1/2 to eye 1 1/2 - 2 1/4 - length ear 1 1/4
 foot 2 1/4 - 3 1/4 No. 114 (a)
 has white tips to the ears.

" " } Polioptila 9 3/4. 10 1/2. 5 1/4 ♂
 Specimen No. 114

~~... ..
 on Alcedo.~~

✓ " " } 7 1/2. 10. 4 1/4
 Specimen No. 115

✓ June 10th Louisiana Tanager.
 ♂ 7 1/2. 12. 3 3/4
 Specimen No. 116

June 8th The above Tanager found the nest
 of the Oregon Snow bird under the stump of a
 tree, on the ground - 4 eggs - white sprinkled, ex-
 pressly at the larger end with reddish brown, the
 spot at that end being upon a patch of a lighter
 color - (See study and for brown, spots) 116 a

✓ June 10th Red-eyed Vireo ♂ 6. 10. 3 1/4.
 Specimen No. 117

" 16th nest 4 eggs, white marked with
 reddish at the larger end.

✓ June 13th W. Wren } Female 7. 11 1/4. 3 3/4 ♀
 Solitary Wren } Specimen No. 118

" " } do. do. 7. 10. 4. ♂
 also nest with 4 eggs, green in mass.
 Specimen No. 119

" 16th Pine Siskin ♂
 Specimen No. 120

June 16th 1850 - Cedar River 63 1/2 11 1/2 33 1/2
Specimen No 121

Saw under a bunch of *Monarda* *Didyma*
about at Rock River June 10th

June 17th - *Corvus* *Pipilo* ♂ 17 1/2 25 8 1/2
a small flock in the woods on Rock R.
No 122

23rd Jay ♂ 17 1/2 16 1/2 6
This day differed very considerably from the
Cedar day & is perhaps the *Corvus* *Pipilo*
the *Liberia* which the Cedar day is
said to resemble. It's dark brown with blue
with numerous tipped & partly edged with black.
No 123

June 20th whether the female of the *Corvus* *Pipilo*
one seen. During the latter part of the
afternoon at *Singakwata*. I heard a *Corvus* *Pipilo*
sing & shot it off the top. Its plumage
indicated a female & I saw no other in
the vicinity. I did not however examine it

Internally. Yesterday, June 22nd, I shot a
young from a log where I had heard *Didyma*
sing for two days. Its plumage was also
that of a female & I could see no other
near. At this time the young ones are
mostly hatched out, as I have seen broods
of them, but this bird had not been sitting
- it was fat & the breast not divided of
feathers - In opening it, there were no signs
of eggs, but a pair of bean shaped glands like
testicles had occupied their place, not at
all enlarged & of a greenish white color.
It struck me that this might be a barren
female with undeveloped ovaries.

Kestons River

June 27th *Corvus* ♂ 17 1/2 12 1/2 4 3/4

Corvus *Pipilo*. But it does not answer the
full description perfectly. The tarsus of its right
is feathered. Not skinned.

28th *Butor* *Humming* Bird ♂ - 27 1/2 17 1/2
Unfortunately injured in catching from the nest
& put in alcohol. But all given as to the

female heavily marked with spots on the throat, but this has. Eggs two in number long & slender of some size at both ends. Color pinkish white. The nest hung on the limb of a small cedar about 5 feet from the ground. It was made almost entirely of the down of the willow, with a few bits of lichen on the outside.

No. 124

June 30th. Found a nest of a small duck believed to be the Spruce duck under a bush on a rocky point about 40 feet above the water - near River. The nest was quite deep & contained almost entirely of down. Contained 7 eggs of dirty white color. Eggs & specimens of down retained. The eggs contained embryos just forming. Whether this was the second brood or not it is difficult to say. I saw young ones hatched out a few days later. The Canadians called the duck le Plongeur.

No. 125

July 2nd. Mr. Chase & Gardner found a nest of a female with 2 eggs. It was built in a

Canadian garden from the description. The nest originally contained six eggs & the man said that they were almost completely fresh off the nest. The day after the bird was missed - two eggs gone & one broken. The remaining three he took. They were nearly fresh about the size of bantam's eggs, of a very light cinnamon brown tint, with dark brown brown speckles & blotches.

No. 126

July 3rd. Found on the Kootenay a small nest, apparently recently abandoned containing only one egg.

~~Spizella monticola~~ ^{copy this cropped by mistake}

July 5th. Spizella monticola Length 14. + 1/4 inch - body & head 2 1/2 - to eye 1. to ear 2. height ear 1/2 feet 1 1/2 - 2 1/4 - female, pregnant. No. 127

Very common in the pine woods on Kootenay R. - seen sitting erect on logs near their burrows and when disturbed utter a cry & disappear.

10th. 20 2 Length 2 3/4 Length 2 3/4 10 1/2 14 1/2 16 1/2 eye 1. ear 1 1/4 height 1 1/2 feet 1 1/2 2. No. 128

A large brown hawk.
Brown barred with darker. under part of
feather feathers white & some yellow. Iris brown
color 1st quill short & the longest, 5th longer
than 4th. quill of last feather with several
very long & longer than of both partly white
feather yellowish white, center line of each
feather pointed with brown. Belly & sides
lined with brown, rest of under tail coverts
white. Under wing membrane with brown

Apr. 16 - On Katchikan, near Camp of Apr 14/17

Ptychocheilus - (2) $8\frac{1}{4}$, $12\frac{1}{2}$, $4\frac{1}{2}$

Proserpin No 134

do. $8\frac{1}{2}$ $4\frac{1}{2}$

These birds were quite common on the
Island. The ^{ground} ~~area~~ of one examined was filled
with lizard bones.

The *Myiophaga* were abundant here, gen-
erally seen in pairs. Their food
seems to be the seeds of the pine & palm.
The ground of one was filled with them.
Their flight resembles that of the flicker.
They are very spotted but I saw birds.
Stellar's Jay also abundant, and Common Jay.

Resting on trees Oct 7/17

Small bill, young, not passed

Widows - rounded back

Grass on top and bloom (?) a small flock

No 135

$10\frac{1}{4}$ - $22\frac{1}{2}$ - 7

8

Nov. —

Purchased at Victoria hunters skins
of lynx & Wolverine

Nov. 10 Portland Oregon. Specimens
of Oregon Quail - 2 in abnormal
plumage.

John Egan of Portland has several
deer black tail, white tail & one
from the Gulf of California. The
latter not larger than a one year
old - tail white but resembling
the other generally except that it
was redder in coat & the legs
very slender -

Swallows

Dr. Eugene Hammond, U. S. Army says that he watched the swallows (he thinks bank swallows) which built in the porch of the quarters at Fort Yuma. It is testified that they swallow the mud of which they build their nests & pass it by the rectum, depositing it on the nests. He says they have certain times for feeding & working & do not feed during working hours. They were so numerous as to be a pest. They built in the corner of the cupola first, then other birds attached their nests to the corner afforded by the first & so on. These hours were entirely closed except a small hole for the entrance.

Coyotes

Dr. H. examined a coyote killed at Patnamy, in the winter and found a mass of grasshoppers legs in its bowels. Several feet of sawdust were swallowed whole and a piece

of bark with his name on it which he had thrown out of the window a few days before. It which was folded up for swallowing. He had noticed the coyotes poking about among the grass which appeared among the snow and they seem to have been picking off dead grass hoppers. The animal in question was very fat.

The Indians reported to the officers that one of the mules captured by Kammiahaw had dropped a foal —

Thomson, "Aspects of Nature" p 40 is in error about the mark of.

The buffalo does not necessarily go south in winter - retires to the forests at the foot of the mountains. He calls it "common to the northern parts of both continents"! Speaks of huge ox horns in ancient Mex.

can buildings!

Dr Hammond states that there is a difference between the sweat glands of the black tailed & mule deer, that of the former being the long est.

He says the sheep tailed grouse does not breed in Colville valley nor on the Yakima, they probably nest to the Spokane plain - then found them breeding at Walla Walla

(?)

Mr Peabody saw a lynx, larger than a coyote in the valley - not fasciata - short tail - Feby 5th 61 Colville valley - Probably the *L. canadensis*

Wolverines shot on Upper Columbia above Ft. Shepherd -

Nathan Peabody speaks of Bull heads (*Cottus*) in Okinawane Lake nearly 4 feet long.

~~Between~~ Clark's Fork - Beginning of June 1860 - numbers of small frogs - They make a noise something between a chirrup & a twitter & it was sometime before we were satisfied that it did not proceed from birds.

Wells says in letter
Forest and meadows under low
flood - These are without their
green, the grass is brown & dry
Spots of white & pale
green, leading green &
large
Upon the hills, however, has
the red of the

Platania in the timber (Red up
Lemon & Sagat.
The 6th says that there were many
shades of red under the skin of a

1st spotted trout taken at
Muir Lake, Aug. 1st 1857
Nov 14/57

A Chewah man & his son
were with me

Stole salmon & fish.

Keweenaw - He is a Keweenaw
at the wharf, N.

Northwest

Spick-pots, Borek-mist

~~the same~~

Keweenaw & Chewah

1st Shashaw, King of Keweenaw

3rd Keweenaw & accord. to notes
on full page Aug. 1st 1857
at NW side of Lummie Lake

3. Keweenaw according to
Skaakle, Juskah-zul
Whiloway K. Tse-mia

Skaakle, Ymug, Cowhutz, Swail

Okunagon for the church

" " Book Bill

P'whin, Okanagan for the Chewab

~~Kearso.~~

Ka. Phoo

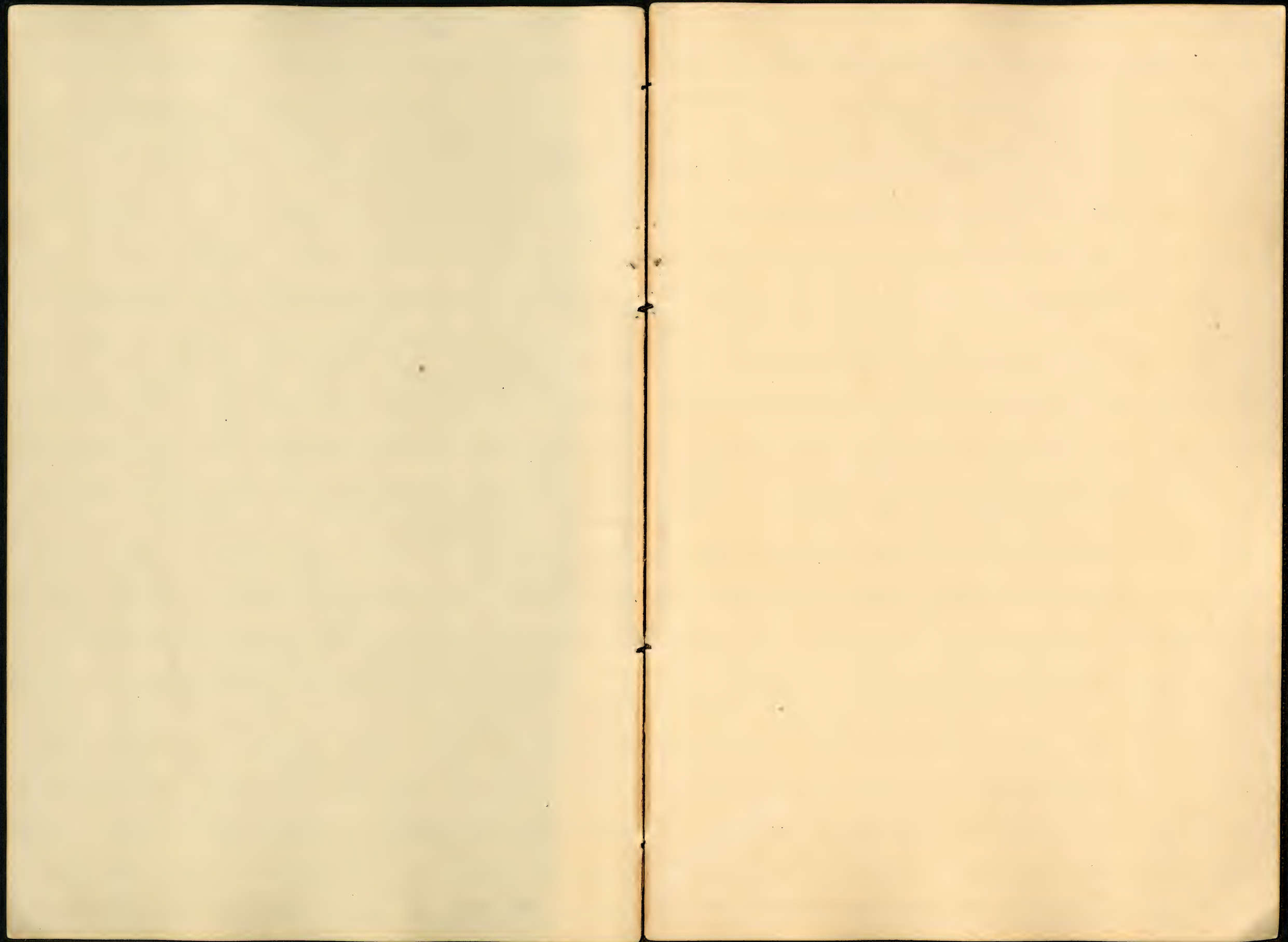
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Bookbilled

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ZOOLOGY.



ZOOLOGY.

211

212

ZOOLOGY.

Mar 11. 81.

